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Issue: 12-26

June 29th, 2012

- **Housing starts jump 20.3% in May**
- **Vancouver's median family income lower than national average**
- **British Columbians eat more vegetables than the average Canadian**

### The Economy

- **Housing starts in the province surged 20.3% in May, adding to a comparatively moderate boost in April (+4.9%).** Unlike BC, Canadian starts were down substantially (-13.3%), with new home building activity dropping off in six provinces. The most significant decline was recorded in PEI (-36.4%), while Manitoba (+114.3%) posted the most notable increase.

*Data Source: CMHC*

- **Food service and drinking places receipts in the province climbed 0.7% (*seasonally adjusted*) in April.** Across Canada, receipts slipped 0.4% as drinking places and all types of food service establishments saw declines. The largest decrease was recorded in Saskatchewan (-2.9%).

*Data Source: Statistics Canada*

- **The number of British Columbians receiving regular employment insurance (EI) benefits dropped 5.1% (*seasonally adjusted*) in April, to 56,000.** Nationally, the number of recipients was down 5.3%, with all provinces posting decreases.

*Data Source: Statistics Canada*

### Income

- **According to income data derived from personal income tax returns, total median census family income in BC's largest city was \$67,090 in 2010, below the national figure of \$69,860.** Among other census metropolitan areas (CMAs) in the province, families in Victoria had by far the highest median annual income (\$77,820) and the ninth highest in the country. Income levels in Kelowna and Abbotsford-

Mission were notably lower (\$67,610 and \$62,320, respectively) than those in the province's capital city.

Nation-wide, the CMA with the highest median income was Ottawa-Gatineau (\$90,790), followed by Calgary (\$89,490) and Edmonton (\$87,930). The lowest family incomes were seen in Abbotsford and Sherbrooke (\$63,360).

Between 2009 and 2010, the largest increases in median family income for families were recorded in Guelph (+2.1%) and Thunder Bay (+1.8%). Many areas saw median incomes decline, most notably in Vancouver (-2.5% from 2009).

The median income is the point at which exactly half of families had higher incomes, and half had lower incomes. A census family refers to a married or a common-law couple, with or without children at home, or a lone-parent of any marital status, with at least one child living at home.

*Data Source: Statistics Canada*

### Apprenticeship Programs

- **Registration for apprenticeship programs in British Columbia was down 1.9% in 2010.** The largest registration declines were seen in training programs for machinists (-9.1%), sheet metal workers (-8.9%), interior finishers (-8.8%) and heavy duty equipment mechanics (-7.7%). Conversely, double-digit growth was recorded in the number of registrations for the food service (+19.6%), electronics & instrumentation (+24.3%), oil & gas (+36.6%) and welding (+11.7%) trades. Overall, fewer men (-3.0%) in

Report

**Filling the Landfills? : 2010-2025 Forecast of  
Solid Waste Generation in BC**

### Did you know...

Almost half (48%) of Canadians would choose salmon as Canada's national food. Other popular choices include poutine (21%), back bacon (19%) and the Timbit (8%).

Source: Ipsos Canada

the province enrolled for apprenticeship training in 2010, but the number of new female registrants jumped 8.5%.

Nationally, the number of registrants for apprenticeship programs increased 5.2%. PEI (+7.6%), Quebec (+9.1%) and Ontario (+9.5%) were the only provinces to experience increases higher than the national average. Meanwhile, Nunavut saw enrolment soar 28.8% over 2009 levels.

Data Source: Statistics Canada

- **Completions of apprenticeship programs were on the rise in BC, surging ahead 22.0% in 2010.** The greatest increase was in the oil & gas trades (+150.0%), followed by welding (+138.7%), exterior finishing (+78.9%) and food service (64.0%) trades.

### Health

- **In 2011, 40.7% of British Columbians aged 12 and older reported that they consumed fruit and vegetables five or more times per day.** This was down for the second consecutive year, but remained slightly above the national average of 40.4%.

The province's females were much more likely than males to eat their fruit and vegetables. In 2011, 45.2% of females consumed fruit and vegetables five or more times daily, compared with 36.1% of males.

Overall, residents of Quebec are the nation's most avid fruit and veggie consumers, with 46.8% reporting eating at least five servings a day in 2011. At the other end of the spectrum were Nunavut (20.2%) and Newfoundland & Labrador (26.8%).

Data Source: Statistics Canada

### The Nation

- **The Canadian economy grew 0.3% (seasonally adjusted) in April, marking the first significant expansion in the nation's GDP since December 2011.** Goods-producing industries, which surged ahead 0.8%, were responsible for most of the growth. Mining, oil and gas extraction rebounded (+2.7%), while agriculture, forestry & fishing posted a 1.5% increase in GDP.

However, construction (-0.1%), utilities (-0.2%), and manufacturing (-0.3%) did not fare as well.

The service sector continued to grow at a slow but steady pace (+0.1%). Wholesale trade (+1.2%) and transportation & warehousing (+0.7%) boosted the overall performance of the sector, with most other industries posting modest growth. At the same time, arts, entertainment & recreation (-1.0%) and accommodation & food services (-0.6%) fell back after surging in March.

Data Source: Statistics Canada

- **Canadian manufacturers' prices were slightly higher (+0.7%) this May than in the same month of 2011.** A 4.0% year-over-year rise in the price of motor vehicles was the largest contributor to the overall increase. Prices for lumber & other wood products (+5.9%) and fruit, vegetables, feeds & other food products (+2.1%) were also among those exerting inflationary pressure. Meanwhile, Canadian manufacturers of primary metal (-7.5%) and petroleum & coal (-0.9%) products saw lower prices in May.

Prices for BC softwood lumber (+10.8%) remained above 2011 levels. Coastal producers received slightly more (+0.4%) for their product than they had a year earlier, but those in the Interior saw a hefty boost (+15.0%).

The exchange rate has had an effect on the prices of goods produced largely for export. A 4.1% year-over-year decline in the value of the Canadian dollar against the US dollar has meant that Canadian exporters of these goods are receiving more in Canadian funds.

Data Source: Statistics Canada

- **Tourism spending in Canada was up 0.9% in the first quarter, marking the 11th consecutive quarterly increase.** The rise was driven by domestic tourism demand (+0.6%) as well as tourism spending by non-residents (+2.0%).

Data Source: Statistics Canada

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## Filling the Landfills? : 2010-2025 Forecast of Solid Waste Generation in BC

Predicting future waste quantities is a vital component of waste management that aids in the managing and planning of waste programs. Waste projection results are valuable tools that can be used to inform policy decisions as well as development and enhancement of waste collection and treatment services.

British Columbia is comprised of 29 unique regional districts (RDs), each of which are responsible for managing waste residuals and tracking waste statistics and composition at landfills within their respective municipalities. The province and its regional districts rely on solid waste studies to provide information about the various waste streams and to assist with the development of waste reduction strategies.

As existing recycling, product stewardship and other programs become more common and new programs are developed, more waste will be diverted from landfills. Historical data confirm this likelihood. For example, between 2000 and 2010, as numerous programs were implemented and improved upon, the amount of material diverted for recycling increased dramatically in the province, nearly tripling (+193.3%) from 660 thousand tonnes to 1.9 million tonnes over the ten-year period.<sup>1</sup>

<sup>1</sup> For more detailed information on division of waste by sector, as well as how sectors are determined, see the BC Stats report "British Columbia's Solid Waste Flow, 2006" (February, 2010) and the Natural Resource Canada report "An Analysis of Resource Recovery Opportunities in Canada and the Projection of Greenhouse Gas Emission Implications" (March, 2006).

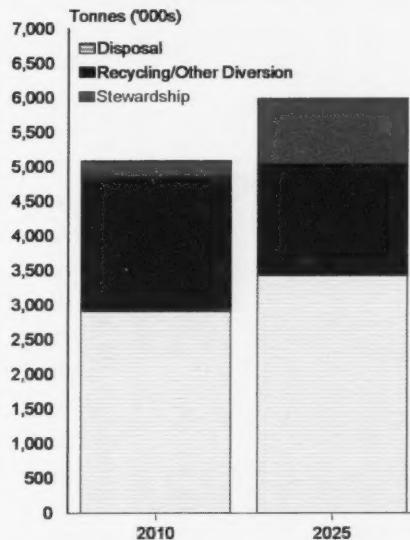
With this in mind, three projection scenarios, with varying degrees of measures taken to divert waste from disposal, have been developed to estimate future solid waste management components. The first scenario is one in which the current diversion rates (2010 base year) remain unchanged, but plans for new industry product stewardship programs proceed as expected, except enhanced construction, renovation and demolition (CR&D) waste programs do not materialise as quickly as expected. The second scenario predicts the potential change in disposal rates if recycling/diversion rates were to increase, particularly with respect to organics, and where CR&D programs are implemented. A final scenario is one whereby aggressive strides are made in order to push recycling/diversion levels to new heights.

### Scenario 1

The starting point for any projection of waste quantities must be the current status of solid waste management. For the purposes of these projections, estimates made using existing data for 2010 are considered to be representative of current (status quo) conditions.

In 2010, an estimated 2.9 million tonnes of solid waste were disposed of in BC's landfills. Meanwhile, approximately 1.9 million tonnes of material were diverted from landfills for recycling and a further 242 thousand tonnes were collected through stewardship programs. This amounts to a provincial diversion rate of 43%.

Combined Residential, ICI and CR&D sector Solid Waste Projections - Scenario 1



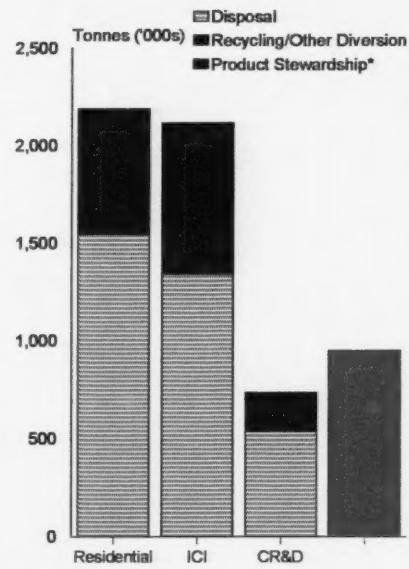
Source: BC Stats, 2012

It is predicted that overall waste generation will climb by 17.7% between 2010 and 2025. If current diversion rates are maintained, it is estimated that disposal tonnage in BC will reach 3.1 million tonnes (+7.7%) by 2015 and 3.4 million tonnes (+17.5%) by 2025. The amount of materials recycled is forecast to decline 16.4% to 1.6 million tonnes in 2025 due to a shift of a considerable portion of goods currently collected through recycling programs toward new stewardship programs. As a result, product stewardship is predicted to climb substantially (+292.3% to almost one million tonnes).

In terms of waste breakdown by key sectors, the first scenario forecast determines that disposal of residential waste (+21.2%) in the province's landfills would see the largest increase between 2010 and 2025, followed by the industrial, commercial and institutional (ICI)

sector (+17.6%) and construction, renovation and demolition (CR&D) sector (+8.0%).

Projected Shares of Waste Generated, 2025 - Scenario 1



Source: BC Stats, 2012

\*Product Stewardship is not available by sector

## Scenario 2

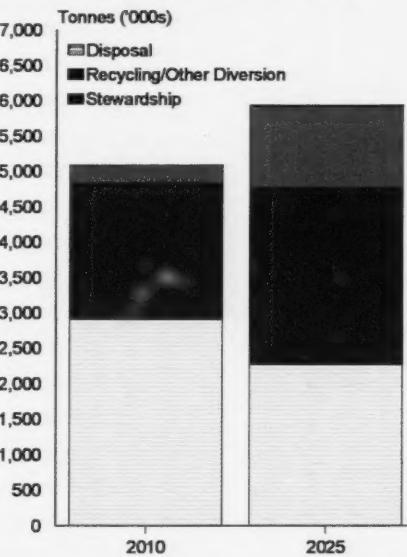
Given the trend toward increased recycling, stewardship and other practices, a scenario whereby waste diversion efforts experience moderate expansion appears to be fairly realistic. For example, the province's regions vary significantly in the recycling options available. Consequently, per capita disposal and recycling rates differ widely across the province. By boosting the regions that are lacking in programs, such as curb-side recycling collection, to levels that some other regions have managed to reach, a substantial reduction in waste disposed at landfills could be attained.

Further, should more regions expand upon their existing programs, like "Blue Box" and "Blue Bag," by including other types of waste,

such as organics for composting, the potential for further waste diversion becomes even greater. Encompassing approximately 40% of total residential waste and close to 30% of ICI waste disposed in the province, organic waste (food and other organic wastes) was the biggest player in BC's landfills in 2006.<sup>2</sup> It is estimated that, collectively, organics made up more than a quarter of British Columbia's overall waste stream in 2006. Organics are primarily compostable items such as food and yard waste and comprise a particularly hefty share of waste disposed of at landfills in the residential and ICI sectors.

While overall waste generation in BC will continue to rise (+17.7%), in this moderate growth scenario, diversion rates are predicted to jump from 43% to 62% between 2010 and 2025. Waste disposal is projected to decline from 2.9 million tonnes in 2010 to 2.3 million tonnes (-21.8%) in 2025, while it is estimated that recycling could jump from 1.9 million tonnes to 2.5 million tonnes (+29.2%) over the same period. Product stewardship could also play a large role in the increased diversion of waste, potentially climbing 376.5% from 242 thousand tonnes to 1.2 million tonnes.

Combined Residential, ICI and CR&D sector Solid Waste Projections - Scenario 2

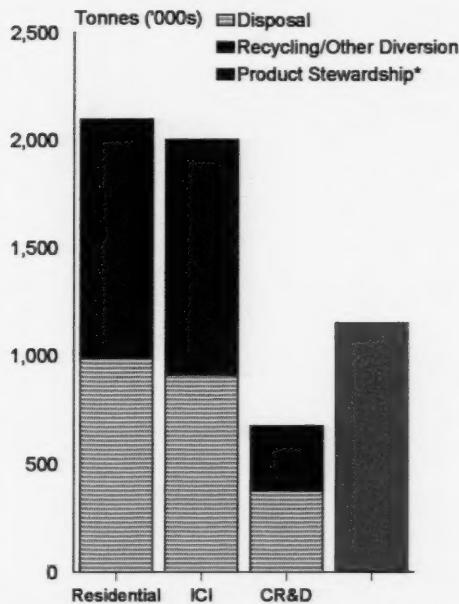


Source: BC Stats, 2012

For the different sectors, the scenario 2 forecast suggests that CR&D would experience the most notable decrease in disposal of waste (-24.4%), as the result of a substantial advance in recycling and stewardship programs. Disposal of residential waste at landfills could see a decline of about 22.4% by 2025, followed closely by the ICI sector (-20.0%). This would translate to a 43.7% boost in recycling of residential materials and a 9.8% increase for the ICI sector. In addition, a significant portion of the waste would be diverted to product stewardship programs.

<sup>2</sup> BC Stats, "British Columbia's Solid Waste Flow, 2006" (February, 2010).

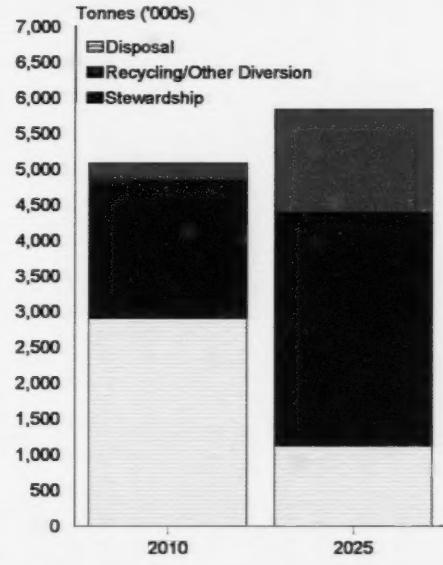
Projected shares of waste generated, 2025  
- Scenario 2



Source: BC Stats, 2012

\*Product Stewardship is not available by sector

Combined Residential, ICI and CR&D sector Solid Waste Projections - Scenario 3

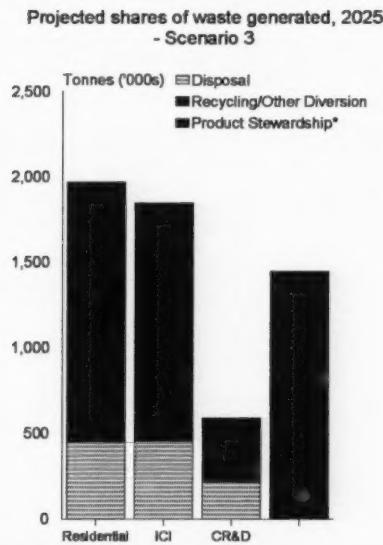


Source: BC Stats, 2012

### Scenario 3

The third and final scenario examined in this projection involves one whereby hard-line strides are made in order to push diversion levels to new heights. Under this model, a predicted 69.5% leap (to 3.3 million tonnes) in recycling/other diversion and a 496.2% jump (to 1.4 million tonnes) in product stewardship would cause the volume of waste disposed of in landfills to shrink by nearly two thirds (-61.6%) to 1.1 million tonnes by the year 2025.

With a 96.9% surge in residential recycling/other diversion, the amount of household waste disposed of in landfills would shrink to just 448 thousand tonnes by 2025. Similarly, the ICI and CR&D sectors would experience substantial boosts in recycling (+39.8% and +119.0%, respectively), pushing the non-residential disposal tonnage down by well over a third. Table 3 offers annual data estimates for this scenario, with a breakdown by sector.



Source: BC Stats, 2012

\*Product Stewardship is not available by sector

### What's Next?

The future of BC's waste disposal rates is heavily reliant on the number, type and adoption rate of waste diversion programs by the province and its municipalities. Altering the current trend and ensuring further waste prevention strategies could include measures such as further education, incentives, disincentives, and new and/or amended regulations. Future changes to existing waste management practices, such as the upcoming Capital Regional District's ban on landfill disposal of kitchen scraps, have the potential to dramatically impact the current waste management infrastructure in BC.<sup>3</sup>

Given the rising population in British Columbia, an increase in waste generated in the province is inevitable, regardless of the direction or intensity of diversion programs. As such, the real prospective benefit to monitoring, developing, and implementing diversion programs lies in the moderation of waste that is disposed of in landfills. There is a substantial cost borne by municipalities to find and develop sites for new landfills when old ones reach the end of their lifespan. On the other hand, there is also a significant cost of administering an increasing number of product stewardship and other diversion programs.<sup>4</sup> However, spending in this capacity will likely outweigh the cost of developing new landfills as well as offset much of the environmental impact of developing waste facilities at new sites and not recycling (i.e., wasted resources).

Costs to the environment are often overlooked because they are not necessarily measured in monetary terms and they tend to be external to the person or organization that is creating the waste. However, it is a price that, in the long run, all citizens will have to pay.

<sup>3</sup> For more on the 2015 Hartland Landfill phased-in ban on kitchen scraps, as well as links to other municipalities offering such programs, see [www.crd.bc.ca/waste/organics/kitchen-scrap.htm](http://www.crd.bc.ca/waste/organics/kitchen-scrap.htm)

<sup>4</sup> For provincial and sub-provincial population projections, see [www.bcstats.gov.bc.ca](http://www.bcstats.gov.bc.ca)

**Table 1 - Scenario One**

('000s of Tonnes)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Disposal</b>	2,912	2,944	2,996	3,042	3,092	3,135	3,180	3,218	3,244	3,264	3,289	3,312	3,338	3,367	3,395	3,422
Residential	1,275	1,289	1,305	1,322	1,340	1,359	1,378	1,397	1,416	1,435	1,454	1,473	1,491	1,510	1,528	1,545
ICI	1,142	1,159	1,180	1,199	1,221	1,238	1,257	1,272	1,282	1,289	1,298	1,305	1,313	1,323	1,333	1,343
CR&D	495	496	511	521	531	537	545	549	546	540	537	534	533	535	535	534
<b>Recycling</b>	1,935	1,955	1,991	2,024	2,076	2,153	2,153	2,154	2,154	2,156	2,153	2,157	2,158	2,159	2,166	2,168
Residential	771	779	794	807	707	602	610	616	618	619	622	625	629	634	639	644
ICI	993	1,003	1,022	1,038	886	726	736	742	745	746	749	752	756	762	767	773
CR&D	171	173	176	179	182	184	187	189	190	191	193	194	195	197	199	201
<b>Product Stewardship</b>	242	245	248	252	539	835	847	858	870	882	894	905	917	928	940	951
<b>Total Generated</b>	5,089	5,144	5,235	5,317	5,406	5,482	5,560	5,623	5,667	5,702	5,746	5,788	5,835	5,888	5,940	5,991
Diversion Rate	43%	43%	43%	43%	43%	43%	43%	43%	43%	43%	43%	43%	43%	43%	43%	43%

**Table 2 - Scenario Two**

('000s of Tonnes)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Disposal</b>	2,912	2,869	2,827	2,784	2,742	2,700	2,657	2,615	2,573	2,530	2,488	2,446	2,403	2,361	2,318	2,276
Residential	1,275	1,256	1,237	1,218	1,199	1,180	1,161	1,142	1,122	1,103	1,084	1,065	1,046	1,027	1,008	989
ICI	1,142	1,127	1,111	1,096	1,081	1,066	1,051	1,035	1,020	1,005	990	974	959	944	929	913
CR&D	495	486	478	470	462	454	446	438	430	422	414	406	398	390	382	374
<b>Recycling</b>	1,935	2,028	2,156	2,273	2,115	1,880	1,929	1,902	1,976	2,039	2,112	2,183	2,259	2,340	2,421	2,501
Residential	771	811	860	907	844	751	770	786	826	865	905	945	985	1,026	1,067	1,108
ICI	993	1,035	1,088	1,136	1,021	861	873	875	902	924	950	974	1,001	1,030	1,060	1,090
CR&D	171	182	209	229	250	268	286	241	247	250	257	264	273	283	293	302
<b>Product Stewardship</b>	242	246	253	260	549	903	974	1,047	1,060	1,074	1,088	1,101	1,115	1,129	1,142	1,155
<b>Total Generated</b>	5,089	5,144	5,235	5,317	5,406	5,482	5,560	5,623	5,667	5,702	5,746	5,788	5,835	5,888	5,940	5,991
Diversion Rate	43%	44%	46%	48%	49%	51%	52%	53%	55%	56%	57%	58%	59%	60%	61%	62%

**Table 3 - Scenario Three**

('000s of Tonnes)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Disposal</b>	2,912	2,792	2,672	2,553	2,433	2,314	2,194	2,075	1,955	1,836	1,716	1,597	1,477	1,357	1,238	1,118
Residential	1,275	1,220	1,165	1,110	1,054	999	944	889	834	779	724	669	614	558	503	448
ICI	1,142	1,096	1,051	1,005	959	914	868	822	776	731	685	639	594	548	502	457
CR&D	495	476	457	438	420	401	382	363	345	326	307	288	270	251	232	214
<b>Recycling</b>	1,935	2,105	2,310	2,503	2,422	2,206	2,331	2,144	2,233	2,373	2,520	2,666	2,816	2,971	3,126	3,280
Residential	771	847	931	1,014	988	904	959	944	992	1,066	1,141	1,216	1,291	1,367	1,443	1,518
ICI	993	1,065	1,148	1,227	1,141	981	1,022	973	996	1,048	1,103	1,156	1,212	1,270	1,328	1,387
CR&D	171	193	230	261	293	321	350	227	244	259	276	294	313	334	355	374
<b>Product Stewardship</b>	242	246	253	261	551	962	1,035	1,257	1,332	1,347	1,364	1,380	1,396	1,413	1,429	1,445
<b>Total Generated</b>	5,089	5,144	5,235	5,317	5,406	5,482	5,560	5,623	5,667	5,702	5,746	5,788	5,835	5,888	5,940	5,991
Diversion Rate	43%	46%	49%	52%	55%	58%	61%	63%	66%	68%	70%	72%	75%	77%	79%	81%



## BC at a glance . . .

POPULATION (thousands)		Jan 1/2012	% change on one year ago
BC	4,597.9		1.0
Canada	34,670.4		1.1
GDP and INCOME (Released Nov 8)		2010	% change on one year ago
(BC - at market prices)			
Gross Domestic Product (GDP) (\$ millions)	203,147		5.9
GDP (\$ 2002 millions)	167,140		3.0
GDP (\$ 2002 per Capita) (reflects revised pop)	36,899		1.4
Personal Disposable Income (\$ 2002 per Capita)	26,166		2.2
TRADE (\$ millions, seasonally adjusted)		prev. month	% change on prev. month
Manufacturing Shipments - Apr 2012	3,150		-1.2
Merchandise Exports - Apr 2012	2,749		1.7
Retail Sales - Apr 2012	5,145		-0.2
CONSUMER PRICE INDEX		12-month avg	% change
(all items - May 2012)			
BC	1.3		1.9
Vancouver	1.5		2.0
Victoria	1.2		1.8
Canada	1.2		2.5
LABOUR FORCE (thousands)		prev. month	% change on prev. month
(seasonally adjusted)			
Jobs Created (-Lost) - BC	-0.2		
Labour Force - BC	2,503.6		1.2
Employed - BC	2,318.6		0.0
Unemployed - BC	185.0		19.9
Unemployment Rate - BC (percent)	7.4	Apr 2012	6.2
Unemployment Rate - Canada (percent)	7.3		7.3
INTEREST RATES (percent)		Jun 27/2012	Jun 29/2011
Prime Business Rate	3.00		3.00
Conventional Mortgages - 1 year	3.20		3.50
- 5 year	5.24		5.39
US-CANADA EXCHANGE RATE		Jun 27/2012	Jun 29/2011
(avg. noon spot rate) Cdn \$ per US \$	1.0257		0.9807
(closing rate) US \$ per Cdn \$	1.0255		1.0303
AVERAGE WEEKLY WAGE RATE		May 2012	% change on one year ago
(industrial aggregate - dollars)			
BC	836.13		0.5
Canada	863.53		3.1
<b>SOURCES:</b>			
Population, Gross Domestic Product, Trade, Prices, Labour Force, Wage Rate	Statistics Canada		
Interest Rates, Exchange Rates: Bank of Canada Weekly Financial Statistics	}		
For latest Weekly Financial Statistics see <a href="http://www.bankofcanada.ca">www.bankofcanada.ca</a>	}		

### Solid Waste Generation Forecast

This report highlights three projection scenarios with varying degrees of measures taken to divert waste from British Columbia landfills. The report includes a summary of the methodology and the results of the forecast for each scenario from 2010 through 2025. Read this at: <http://www.bcstats.gov.bc.ca/StatisticsBySubject/EnvironmentalStatistics/Analysis.aspx>

### Census 2011 Fast Facts

The age-sex data from the 2011 Census have been released. For the first time, since reporting began, persons 65 years of age and older outnumbered 0 to 14 year-olds in BC. See more: <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Census/2011Census.aspx>

### Follow @BCStats on Twitter

The central statistical agency of the Province of BC is regularly updating and interacting on the Twitter social media platform – connect with us: [@bcstats](https://twitter.com/bcstats)

### New RSS Feeds From BC Stats

BC Stats has published several new RSS feeds: <http://www.bcstats.gov.bc.ca/Help/RSSFeeds.aspx>

### The 2011 National Household Survey

Release dates have been set as:

**May 8, 2013**

- Immigration; Citizenship; Place of birth; Language; Ethnic origin; Visible minorities; Religion; Aboriginal Peoples

**June 26, 2013**

- Labour; Education; Place of work; Commuting to work; Mobility and migration; Language of work

**August 14, 2013**

- Income; Earnings; Housing; Shelter costs

<http://www12.statcan.gc.ca/nhs-enm/index-eng.cfm>

### Released this week by BC Stats

- Business Indicators Data

### Next week

- Economic Statistics Report
- Labour Force Statistics
- Earnings and Employment Trends